AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1. (Currently Amended) A process ~~Process~~ for the continuous purification and concentration of leukocytes ~~from blood or~~ from a buffy coat fraction, characterized in that said process comprises the following steps:

(a) separating plasma ~~from the blood or~~ from the buffy coat fraction by filtration in order to achieve a filtered buffy coat fraction;

(b) adding an aqueous solution, which is hypotonic in relation to plasma, to the filtered buffy coat fraction resulting from step (a), in order to achieve lysis of erythrocytes contained in the filtered buffy coat fraction;

(c) mixing the filtered buffy coat fraction and the aqueous hypotonic solution from step (b) in a mixing device;

(d) leading the mixture from step (c) through a retention vessel;

(e) leading the mixture from step (d) through a centrifuge in order to separate the leukocytes;

(f) collecting the separated leukocytes from step (e).

Claim 2. (Canceled)

Claim 3. (Previously Presented) Process according to claim 1, characterized in that in step (b) the aqueous hypotonic solution is ammonium chloride.

Claim 4. (Currently Amended) Process according to claim 1, characterized in that the filtration is performed by leading ~~the blood or~~ the buffy coat fraction through a membrane filter with a pore size in the interval of 0.1 - 1.0 μm.

Claim 5. (Currently Amended) Process according to claim 4, characterized in that the filtration is performed by leading ~~the blood or~~ the buffy coat fraction through a membrane filter with a pore size in the interval of 0.4 - 0.6 μm.

Claim 6. (Previously Presented) Process according to claim 1, characterized in that the retention vessel is designed in a way resulting in a retention time for the mixture in step (d) of about 0.5 - 10 minutes.

Claim 7. (Previously Presented) Process according to claim 1, characterized in that the leucocytes collected in step (f) are subjected to a second lysis step.

Claim 8. (Previously Presented) Process according to claim 1, characterized in that the leukocytes collected in step (f) are incubated in a bioreactor for interferon production.

Claim 9. (Previously Presented) Process according to claim 1, characterized in that the plasma separated in step (a) is recovered.

Claim 10. (Currently Amended) Process according to claim 1, characterized in that the process is automatically operated and adapted for clean in place (CIP) cleaning and sanitation in place (SIP), wherein

the CIP is performed by automatically cleaning the centrifuge, retention vessel and mixing device, as well as filters used in the filtration of step (a), by ~~cleaning a system at site by~~ pumping cleaning solutions in the system; and

the SIP is performed by sanitizing the centrifuge, retention vessel and mixing device, as well as filters used in the filtration of step (a), ~~sanitizing a system at site~~ by a liquid or a gas which kills microorganisms, or heat.

Claim 11. (Currently Amended) Process according to claim 1, characterized in that ~~the blood or~~ the buffy coat fraction is derived from human blood.

Claim 12. (Currently Amended) An apparatus ~~Apparatus~~ for ~~separation of plasma from blood or~~ continuous purification and concentration of leukocytes from a buffy coat fraction, characterized in that said apparatus includes the following means:

(i) a membrane filter means for separating plasma from the ~~blood~~ buffy coat fraction by filtration in order to achieve a filtered buffy coat fraction;

(ii) a ~~retention vessel~~ static mixer means for mixing the filtered buffy coat fraction and an aqueous hypotonic solution ~~in order to achieve lysis of erythrocytes contained in the buffy coat fraction~~;

(iii) a retention vessel means for achieving lysis of erythrocytes contained in the filtered buffy coat fraction;

(iv) a centrifuge means for separating ~~in order to separate~~ the leukocytes.

Claims 13-14. (Canceled)

Claim 15. (Original) Apparatus according to claim 12, characterized in that the membrane filter means is a filter with a pore size in the interval of 0.1 - 1.0 μm.

Claim 16. (Original) Apparatus according to claim 14, characterized in that the membrane filter means is a filter with a pore size in the interval of 0.4 - 0.6 μm.

Claim 17. (Original) Apparatus according to claim 12, characterized in that the retention vessel means is designed in a way resulting in a retention time for the mixture in the retention vessel of about 0.5 - 10 minutes.

Claim 18. (Currently Amended) Apparatus according to claim ~~11~~ 12, characterized in that the centrifuge is adapted to continuous separation of the leukocytes.

Claim 19. (Currently Amended) Apparatus according to claim ~~11~~ 12, characterized in that said apparatus is equipped for cleaning and sanitation, which cleaning and sanitation does not require the dismantling of the equipment, so called clean in place (CIP) and sanitation in place (SIP).

Claim 20. (Previously Presented) Process according to claim 2, characterized in that in step (b) the aqueous hypotonic solution is ammonium chloride.

Claim 21. (Previously Presented) Process according to claim 2, characterized in that the plasma separated in step (a) is recovered.